

REMARKS

This Amendment is responsive to the final Office Action mailed on May 12, 2008. Claims 40, 81, 82, 84, 85, 86 and 88 are amended. Claims 42, 83 and 87 are cancelled. Claims 40, 41, 43-82, 84-86, and 88 are pending.

Claims 40, 41, 43-52, 55, 57-72, 78-80, 84-86, and 88 are rejected under 35 U.S.C. § 102(b) as being anticipated by Thrash (US 5,801,914).

Claims 42, 53-54, 56, 73-77, 81-83, and 87 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Thrash in view of Saito (US 6,243,018).

Applicants respectfully traverse these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claim 40 is amended to include the subject matter of claim 42. In particular, claim 40 is amended to specify a detector element embedded within a protective enclosure and with successive windings surrounding the supply line over an extent of the supply line. Claim 40 is also amended to specify that the arc is a parallel local arc which originates from one of the at least one current-carrying inner conductor to a body component of the vehicle, and that the isolating circuit is responsive to the change of the at least one of the electrical and optical properties of the detector element.

Similar amendments are made to claims 81, which is further amended to specify that the successive windings surround the supply line over an extent of the supply line from the current feed terminal to the current delivery terminal.

Claim 82 is amended similarly to claim 81.

Claim 84 is amended similarly to claim 81 and also to specify that the detector element comprising a detector line and a carrier strip on which the detector line is held.

Claim 85 is amended to specify a detector element embedded within a protective enclosure and with successive windings surrounding the supply line over an extent of the supply line from the current feed terminal to the current delivery terminal, and that the isolating circuit is responsive to the change of the at least one of the electrical and optical properties of the detector element.

Claim 86 is amended to specify that the carrier is a carrier strip and the detector line is applied on the strip in the form of a detector track. Claim 86 is also amended to specify that the isolating circuit is responsive to the change of the at least one of the electrical and optical properties of the detector element.

Claim 88 is amended to specify a detector element in the form of a strip embedded in a protective enclosure and with successive windings surrounding the supply line over an extent of the supply line from the current feed terminal to the current delivery terminal. Claim 88 is also amended to specify that the isolating circuit is responsive to the at least one optical property of the detector element.

Claims 42, 83 and 87 are cancelled.

Discussion of Rejections in view of Thrash and Saito

Claims 40, 41, 43-52, 55, 57-72, 78-80, 84-86, and 88 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Thrash. This rejection is respectfully traversed. An anticipation rejection requires that each and every element of the claimed invention as set forth in the claim be provided in the cited reference. See *Akamai Technologies Inc. v. Cable & Wireless Internet Services Inc.*, 68 USPQ2d 1186 (CA FC 2003), and cases cited therein. As discussed in detail below, Thrash does not meet the requirements for an anticipation rejection.

As indicated by the Examiner, Thrash discloses a detecting element which reacts to an electrical arc. However, according to column 6, lines 40 to 60 of Thrash, the arc is a so-called serial arc (as defined, e.g., at page 17, lines 4-9 of Applicants' specification) The limitation to serial arcs in Thrash is due to the fact that the detector line runs along the power lines so that a serial arc will

heat the detector line and cause the described damage. However, the detector line of Thrash is not adapted to react in the same way to a so-called parallel arc because such a parallel arc will extend radially from the power line and can therefore be located on a side opposite to the detector line 34 so that the detector line is protected by PTC material 26 of Thrash, which will "shield" the detector line 34 from being affected by such a parallel arc, as shown for example in the marked up copy of Fig. 2 of Thrash attached hereto.

As a result, Thrash is not able to properly detect or react to a parallel arc.

Accordingly, Thrash does not disclose or remotely suggest the detection of a parallel arc as set forth in amended claims 40, 81, 82, and 84.

Further, independent claims 40, 81, 82, 84, 85, and 88 are amended to specify that the detector element is embedded in a protective enclosure and has successive windings that surround the supply line over an extent of the supply line, and that the arc is a parallel arc that occurs from the at least one current carrying inner conductor to a body component of a vehicle. Applicants respectfully submit that Thrash does not disclose or remotely suggest such a detector element as claimed by Applicants. Rather, the detector line 34 of Thrash runs along the conductors 28 and 30. The detector line 34 does not have any windings that surround the conductors 28 and 30. Accordingly, as discussed above, Thrash cannot detect a parallel arc.

The Examiner relies on Saito as disclosing the subject matter of claim 42 (that the detector element surrounds the supply line). The subject matter of claim 42 is now included in independent claims 40, 81, 82, 84, 85, and 88.

Applicants respectfully submit that Saito cannot be combined with Thrash. Saito discloses a strip like conductor and that a strip like conductor is wrapped around the power line or the power lines. However, the aim of Saito is to detect a potential change that is due to a short between the detector line and ground or a short between the detector line and the power line. Saito does not disclose or remotely suggest the concept of breaking or interrupting of the detector line.

Applicants respectfully submit that the concept of Saito would be inoperable if the detector line was broken due to the occurrence of an arc because if the detector line breaks there is no chance to

reliably detect the potential change of the detector line. Saito clearly focuses on the idea that the detector line must stay conductive in order to be able to properly detect the potential change. Thus, in Saito the detector line has to remain operable and conductive even in the event an arc occurs.

In view of the foregoing, Applicants respectfully submit that one skilled in the art would not have combined the concept of Thrash with the concept of Saito, because Saito discloses the concept that the detector line shall stay conductive and shall not be disturbed by an arc. The combination of Thrash and Saito would therefore be a combination of two entirely different concepts: one concept being based on the break of the detecting line (Thrash) and the other concept being based on the maintaining the integrity of the detector line (Saito).

Further, the concept of Thrash used to destroy the detector line in reaction to an arc is different from the one claimed in independent claims 85 and 86. In particular, Thrash discloses strands of 35 micron stainless steel fiber which are twisted around a strand of polyester yarn. The polyester is melted at 256 degrees Celsius and the stainless steel is melted at about 1500 degrees Celsius (Col. 4, lines 29 to 37). Thrash explains that the polyester adds strength to the stainless steel fiber in order to facilitate the manufacturing process (Col. 4, lines 54 to 56). Thrash specifies that the damage of the detector line is due to the fact that the stranding of the stainless steel is small enough that heat will cause conductive fiber 32 to sever before the blanket fabric can be ignited (Col. 4, lines 46 to 53). Thus, Thrash clearly relies on the fact that the heat caused by an arc will be sufficiently high in order to melt the stainless steel. This fact is further confirmed by another described embodiment of Thrash in which the conductive fiber has no polyester yarn and that this conductive fiber is only made by strands of 14 micron stainless steel (Col. 4, lines 38 to 45). Consequently, the detector line of Thrash is damaged by melting the stainless steel of the detector line itself.

Thrash does not disclose or remotely suggest that there should be a specific effect of the carrier on the detector track so that the thermal heating of the carrier itself causes or at least supports the irreversible deformation of or change in the detector line, as claimed in claims 85

and 86. In addition, Trash does not disclose or remotely suggest a detector element changing its optical properties when an arc occurs and an isolating circuit responsive to such a change in optical properties, as set forth in Applicants' claim 88.

Claim 86 has been further amended in order to more specifically define the inventive concept over Thrash in view of the fact that the carrier of Thrash has no effect on the conductive track on the carrier. Amended claim 86 now specifies a carrier strip with a detector line applied thereon in the form of a track. Although Saito arguably uses a carrier strip and a detector line in the form of a track, in Saito the detector line must be intact for the detecting of the potential change. Further claim 86 defines that the carrier strip is made of a material which exerts mechanical forces on the detector track, a concept which is neither disclosed or remotely suggested by either Thrash or by Saito.

Applicants respectfully submit that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Thrash, taken alone or in combination with Saito or any of the other prior art of record.

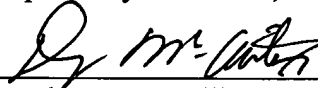
Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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